



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/516,534

12/02/2004

Wolfgang Hahn

449122078200

4504

29177 7590 06/30/2008
BELL, BOYD & LLOYD, LLP
P.O. BOX 1135
CHICAGO, IL 60690

EXAMINER

NGUYEN, SIMON

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

06/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,534	Applicant(s) HAHN ET AL.	
	Examiner SIMON D. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Brief Request filed 9/27/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. After carefully reviewing Pre-Brief Request filed 9/27/07, the Examiner has agreed with the arguments in Remarks, as the result, the Final Rejection filed 6/27/07 has been withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-2, 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the term “SIP” registration has been claimed and argued in Remarks, however, nowhere in the SPEC disclosed what SIP means. Since the SIP registration is a claimed term, it is required to disclose its definition in the SPEC.

Secondly, the paragraph “receiving an IP address from the wireless LAN, after which the subscriber receiving the IP address is authenticated to the IP multimedia subsystem while giving the IP address by means of SIP registration” is unclear. What element to receive the IP address? What element to give the IP address? The structure of the paragraph, as a whole, is hard to understand what it means.

Regarding claim 2, the paragraph “an IP multimedia system for authenticating a subscriber to be authenticated by means of SIP registration, and located at a location

having wireless LAN coverage, by giving an IP address allocated by the wireless LAN” is unclear. What element to give an IP address allocated by the wireless LAN? It is suggested to restructure the claimed invention to be understandable by an ordinary person in the art.

Regarding claims 24-26, the terms “second device” and “third device” have been claimed. Where is a first device? Make sure to amend a device in claim 23 as a first device. Furthermore, the SPEC has not clearly defined, first, second, and third devices.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-21, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US 2003/0169713 A1) in view of Ejzak (US 2003/0027595 A1).

Regarding claim 1, Luo discloses a method for authenticating a subscriber (MH 106) for utilizing services in a wireless LAN while using an IP multimedia subsystem (a WLAN subnet 104 allowing the subscriber to access the information via authentication of IP address is considered as IP multimedia subsystem) of a mobile radio network (fig.1, abstract, title), comprising: receiving an IP address from the wireless LAN, wherein the IP address is authenticated by web authentication server 114 while giving the IP address as the subscriber registering with the network (address registration

protocol) (abstract, pars. 9-10, 14, 18-19, 26, 31, 38, 46, 51) ; and notifying an element (MAP) of the wireless LAN about the result of the authentication of the subscriber with regard to the IP multimedia subsystem (paragraphs 35, 44-47, fig.1). It should be noted that Luo has disclosed the WLAN only allow the host (user) to obtain IP networking configuration parameters and to communicate with a Web-based authentication server for initial authentication for registering users. Once a user is authenticated to the WLAN, the user's mobile host obtains full IP connectivity (abstract, par. 14, 18) and wherein the registration of the mobile unit with the network via address registration protocol (par. 31) which obviously means the registration is based on SIP registration. However, Luo does not specifically disclose the term "SIP" registration.

Ejzak discloses a communication system (figs. 1-2), comprising: a radio area network (a RAN is considered as a wireless LAN which is known to those skilled in the art) uses an IP multimedia subsystem (141) in which an IP address allocates to a MT or TE by means of SIP registration (abstract, pars. 10, 56, 82-84, 91, 98-99, 109, 112, 114, claim 1), wherein the registration includes the authentication of the MT or TE (par. 94). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Luo, modified by Ejzak to improve the registration procedure in order to secure the system accessing.

Regarding claim 23, this claim is rejected for the same reason as set forth in claim 1, wherein a device is Web authentication server 114 (fig.1), an IP multimedia system is all elements in a large-scale WLAN network 100 (fig.1), and an IP multimedia subsystem is a WLAN subnet 104.

Regarding claim 2, Luo further discloses the authentication used at a home subscriber system (paragraphs 26, 29, 35, 44, 47, 51).

Regarding claim 3, Luo further discloses the authentication performing by an authentication server (abstract, paragraphs 14, 18, 20, 27-29).

Regarding claim 4, Luo discloses a register message sent to a home agent then to the authentication server for authenticating the mobile host (or subscriber) (see the rejection of claims 1-3 above). However, Luo does not specifically disclose the term "SIP registration". Ejzak discloses the subscriber (MT) transmits the SIP register message to the IP multimedia subsystem (paragraphs 64, 98, claim 1).

Regarding claim 5, Luo further discloses an air interface between a mobile host (106) (subscriber) with the wireless LAN (fig.1-2, paragraphs 17, 23, 28, 34).

Regarding claim 6, Luo further discloses the subscriber (MH 106) receives the IP address from the wireless LAN with other IP transport to receive/transmit registration messages and authentication message from the IP multimedia subsystem (104) (see the rejection of claims 1, 4 above).

Regarding claim 7, Luo further discloses a gateway of WLAN monitoring the authentication (paragraph 35).

Regarding claims 8-9, Ejzak discloses different interfaces comprising a Gi interface, an Mm interface (figs. 1-2, pars. 30, 32, 36, 52).

Regarding claim 10, Luo further discloses when the subscriber or mobile host roaming away from home, the result of authentication is fed to a wireless LAN gateway

by message control function at a location having the WLAN coverage (abstract, paragraph 35).

Regarding claims 11-13, Luo discloses the WLAN having a state control function (MAP) to control a mobile state table (see the table in the left side of fig.1) which forwards the register messages to a corresponding entity in the IP multimedia subsystem (WLAN subnet) for authenticating and control the WLAN gateway with regard to the authentication result for data (packet) to be handled by the WLAN gateway (abstract, pars. 19-35, 50-51) and wherein the authentication can be resulted as grants, restricts, declines a quantity of the data flow of the subscriber through the wireless LAN gateway (paragraphs 23, 27, 35).

Regarding claim 14, Luo discloses the policy control function such as limited access, normal access or blocked access (paragraphs 23, 27, 35) which is part of proxy-call state control function node.

Regarding claims 15-16, Luo discloses when the subscriber (MH 106) is roaming (moving into another subnet, or foreign agent, for example), the authentication result is fed to the WLAN gateway (for example, when the MH 105 moves into WLAN subnet or to a new access point, this WLAN subnet or the new access point is call a WLAN gateway because it is not a home WLAN of the MH (pars. 19-35).

Regarding claim 17, Ejzak discloses an inter-network in which a WLAN (RAN) is connected to the IP multimedia subsystem VIA A Gi interface, a MM interface and an another interface is installed between the call state control function node of the IP

subsystem and the WLAN (RAN) for protecting data transfer (pars. 20, 32, 36, 40-41, 46, 49, 50, 72-78, fig.1).

Regarding claims 18-20, Luo further discloses the gateway evaluates the authentication result by expanding functionalities in the WLAN gateway, and allows the packet of MH 106 to pass (changed from “limited” to “normal”) , wherein the evaluation is implemented using an application layer gateway ((par. 35-44).

Regarding claim 21, Luo further discloses the MH 106 works in a WLAN and in a mobile communication network (fig. 1).

Regarding claims 24-26, Luo disclose home MAP102 as a home WLAN of the subscriber or MH 106, wherein the home MAP 102 (or a home agent) as a second device. Furthermore, Luo also discloses foreign MAP 102 (when the MH 106 moves from one access point to another in WLAN, wherein the foreign MAP is a third device (fig.1, abstract, paragraphs 19, 35, 51), wherein the second and third device associated with the proxy call state control function as shown as Mobile state table 118 for controlling authentication in the WLAN and wherein the third device (WLAN gateway or WLAN foreign MAP for allowing the MH 106' s data to pass through (fig.1, pars 19, 21-22, 35-44).

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Luo (US 2003/0169713 A1) in view of Ejzak (US 2003/0027595 A1) as applied to claim 1, and further in view of Christoffel et al. (2002/0136226).

Regarding claim 22, Luo discloses the WLAN with IEEE 802.11 (pars. 5-12). However, the modified Luo fails to teach the system is the combination of an ETSI HiperLAN and IEEE 802.11.

Christoffel discloses a communication system in which a subscriber roams in a WLAN and a mobile communication system via an authentication (abstract, fig. 6, paragraph 133, 138, 141), wherein the system is a combination of ETSI HiperLAN and IEEE 802.11 (par. 62). Therefore, it would have been obviously for those skilled in the art at the time the invention was made to have modified Luo, modified by Christoffel to secure an access as well data transferring in order to improve the system performance.

Response to Arguments

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

The new cited art issued to Luo discloses method and apparatus for authenticating a mobile subscriber in a WLAN using IP address in a WLAN subnet, wherein the authentication based on register messages which is equivalent to a SIP registration as claimed.

Furthermore, according to my understanding, SIP is the abbreviation of Session Initiation Protocol. If it is the one, Luo indeed disclosed this term since Luo disclosed that for a mobile host to access an IP networking parameter, the user needs to obtain initial authentication via register messages in order to fully connect to the IP network wherein (abstract, pars. 14, 18, 31-35).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 25, 2008

/SIMON D NGUYEN/
Primary Examiner, Art Unit 2618

Application/Control Number: 10/516,534
Art Unit: 2618

Page 10